

ABSTRACT OF THE DISCLOSURE

A step motor includes a rotor having four magnetic poles, a first magnetic pole magnetically excited by a first coil, a second magnetic pole magnetically excited by a second coil, and a third magnetic pole magnetically excited by the first coil and the second coil. A gap D between the third magnetic pole and the rotor is larger than a gap d between the first magnetic pole and the rotor and the gap d between the second magnetic pole and the rotor, so that a magnetic attraction is generated between a pole of the rotor and the first magnetic pole and between another pole of the rotor and the second magnetic pole. With this step motor applied to a shutter driving mechanism of a camera, it is possible to surely retain the shutter state even when the current does not flow.